



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/784,783

02/24/2004

Yoshinori Shimosakoda

OKI.645

2206

20987

7590

07/06/2006

VOLENTINE FRANCOS, & WHITT PLLC
ONE FREEDOM SQUARE
11951 FREEDOM DRIVE SUITE 1260
RESTON, VA 20190

EXAMINER

CAO, CHUN

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/784,783	SHIMOSAKODA, YOSHINORI	
	Examiner	Art Unit	
	Chun Cao	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-12 and 14 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/6/06, 2/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-14 are presented for examination.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title is imprecise.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. the limitation "the selector is disposed within the high-speed clock source" is not described in the specification .

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2115

6. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swoboda et al, U.S. patent no. 5,903,746 in view of Applicant Admitted Prior Art (AAPA).

As per claim 1, Swoboda discloses a clock control circuit carrying out control of a clock signal supplied to a central processing unit, the clock control circuit [figures 7, 11] comprising: a high-speed clock source whose oscillation operation is controlled by an operation control signal, and which generates a high-speed clock used in a usual operation mode; a low-speed clock source always generating a low-speed clock whose frequency is lower than a frequency of the high-speed clock [col. 8, lines 11-20]; a selector selecting one of the high-speed clock and the low-speed clock in accordance with a selection signal, and outputting the selected one of the high-speed clock and the low-speed clock to the central processing unit; a first control section which, when a standby mode is designated by a mode signal, outputs the operation control signal for stopping the high-speed clock source [see tables 1, 2; col. 7, lines 19-24; col. 8, lines 1-6], and which, when an interrupt signal is supplied, outputs the operation control signal for operating the high-speed clock source; and a second control section which, when the standby mode is designated by the mode signal, outputs the selection signal for causing the low-speed clock to be selected [col. 6, lines 30-41; col. 7, lines 29-37; col. 9, lines 58-67].

Swoboda fails to explicitly disclose that when the interrupt signal is supplied, starts counting of the low-speed clock, and when a count value reaches a value set in a

Art Unit: 2115

register, the second control section outputs the selection signal for causing the high-speed clock to be selected.

AAPA discloses when the interrupt signal is supplied, starts counting of the low-speed clock, and when a count value reaches a value set in a register, the second control section outputs the selection signal for causing the high-speed clock to be selected [page 2, lines 1-5; page 2, line 19-page 3, line 5].

It would have been obvious for one of ordinary skill in the art to combine Swoboda and AAPA because they are both directed to a clock control system, and the specifying teaching of AAPA would improve the performance and reliability of the Swoboda's system.

As per claim 2, Swoboda discloses an interrupt signal control section which selects an arbitrary one of or plurality of signals from a plurality of interrupt cause signals, and when a cause for interruption arises at any of the selected signals, the interrupt signal control section outputs the interrupt signal [fig. 7; col. 6, lines 31-49].

As per claim 5, Swoboda discloses that the selector includes a two-input OR gate, a two-input AND gate, a flip-flop having a reset input, a low-through latch, and an inverter [fig. 8; col. 7, lines 15-24].

As per claim 6, Swoboda discloses that the high-speed clock source includes an oscillator, and a multiplier which multiplies by a predetermined number the high-speed clock outputted from the oscillator [col. 4, lines 9-27].

As per claim 7, Swoboda discloses that the high-speed clock source includes an oscillator, and a frequency divider which processes the high-speed clock outputted from the oscillator [col. 8, lines 9-19].

As per claim 8, Swoboda discloses that the selector is disposed within the high-speed clock source [col. 6, lines 30-39].

As per claim 9, Swoboda discloses that the high-speed clock source is structured so as to be able to select and output one high-speed clock from among a plurality of frequencies [col. 3, lines 15-21].

As per claim 10, AAPA inherently discloses that a comparator which can be connected to an output side of the counter, and a register for setting a value corresponding to a stable time at a time of activation of the high-speed clock source in accordance with a control signal from the central processing unit, wherein the register supplies an output signal to the comparator [page 2, lines 1-5; page 2, line 19-page 3, line 5].

As per claim 11, Swoboda discloses that the flip-flop includes an input signal, a clock input, an asynchronous reset signal, and an output signal, and the low-through latch includes an input signal, a gate control signal, and a gate output, and when the reset input is a first signal, the gate output is reset in accordance with the first signal, and the gate output sets the input signal synchronously with a fall of the clock input [fig. 8; col. 7, lines 15-24].

Art Unit: 2115

As per claim 12, Swoboda discloses that the high-speed clock source can generate the high-speed clock, so as to select one frequency from among two or three or more frequencies [col. 3, lines 14-20; col. 8, lines 10-20].

As per claim 14, claim 1 basically is the corresponding elements that are carried out the method of operating steps in claim 14. Accordingly, claims 14 is rejected for the same reason as set forth in claim 1.

Allowable Subject Matter

7. Claims 3, 4 and 13 are rejected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao whose telephone number is 571-272-3664. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 571-272-2100.

Art Unit: 2115

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 29, 2006

A handwritten signature in black ink, appearing to read 'Chun Cao', is positioned above the printed name and title.

CHUN CAO
PRIMARY EXAMINER